

ABSTRACT OF THE DISCLOSURE

A semiconductor device, such as a pin diode, includes a first drift layer, a second drift layer, an anode layer on the first drift layer, and a buffer layer formed between the first and second drift layers. The shortest distance from the pn-junction between the anode layer and the buffer layer, and the thickness of the buffer layer are set at the respective values at which a high breakdown voltage is obtained, while reducing the tradeoff relation between the soft recovery and the fast and low-loss reverse recovery.